

CLAIMS

What is claimed is:

1. A laser level disposable on a first reference surface comprising:
  - a housing;
  - 5 a pendulum pivotably connected to the housing;
  - a first laser diode disposed on the pendulum for emitting a first laser beam along a first path;
  - a first lens disposed on the pendulum in the first path for converting the first laser beam into a first planar beam, the first planar beam forming a first line on the first reference surface;
  - 10 a second laser diode disposed on the pendulum for emitting a second laser beam along a second path; and
  - a second lens disposed on the pendulum in the second path for converting the second laser beam into a second planar beam, the second planar beam forming a second line on the first reference surface,
  - 15 wherein the first and second lines are substantially perpendicular and non-intersecting.
2. The laser level of Claim 1, further comprising a lock mechanism for fixing the position of the pendulum relative to the housing.
- 20 3. The laser level of Claim 2, wherein the lock mechanism comprises a pivotable lock movable between a first position contacting the pendulum and a second position bypassing the pendulum.

4. The laser level of Claim 3, further comprising a spring biasing the lock towards the first position.
5. The laser level of Claim 3, further comprising an actuator for moving the lock between the first and second positions.
- 5 6. The laser level of Claim 1, wherein the housing has at least one vertical reference surface.
7. The laser level of Claim 6, wherein the first beam is substantially parallel to the vertical reference surface.
8. The laser level of Claim 6, wherein the second beam is substantially perpendicular to the vertical reference surface.
- 10 9. The laser level of Claim 1, wherein the housing has at least one horizontal reference surface.
- 10 10. The laser level of Claim 9, wherein the second beam is substantially parallel to the horizontal reference surface.
- 15 11. The laser level of Claim 9, wherein the first beam is substantially perpendicular to the horizontal reference surface.
12. A laser level disposable on a first reference surface comprising:
  - a housing having a substantially vertical reference surface;
  - a first laser diode disposed within the housing for emitting a first laser beam along a
  - 20 first path;
  - a first lens disposed within the housing in the first path for converting the first laser beam into a first planar beam, the first planar beam forming a first line on the first

reference surface, the first line being substantially parallel to the vertical reference surface;

    a second laser diode disposed within the housing for emitting a second laser beam along a second path; and

5       a second lens disposed within the housing in the second path for converting the second laser beam into a second planar beam, the second planar beam forming a second line on the first reference surface, the second line being substantially perpendicular to the vertical reference surface.

13. A laser level disposable on a first reference surface comprising:

10      a housing having a substantially horizontal reference surface;

    a first laser diode disposed within the housing for emitting a first laser beam along a first path;

    a first lens disposed within the housing in the first path for converting the first laser beam into a first planar beam, the first planar beam forming a first line on the first reference surface, the first line being substantially perpendicular to the horizontal reference surface;

15      a second laser diode disposed within the housing for emitting a second laser beam along a second path; and

    a second lens disposed within the housing in the second path for converting the second laser beam into a second planar beam, the second planar beam forming a second line on the first reference surface, the second line being substantially parallel to the horizontal reference surface.

14. An angle measuring device disposable on a first reference surface comprising:

a body having a scale thereon;

a housing rotatably disposed on the body;

a first laser diode disposed within the housing for emitting a first laser beam along a

5 first path; and

a first lens disposed within the housing in the first path for converting the first laser beam into a first planar beam, the first planar beam forming a first line on at least one of the first reference surface and the scale.

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